

Comparisons of Job Characteristics

Focus Occupation: [Welders, Cutters, Solderers, and Brazers \(51-4121\)](#)

Associated Occupation: [Structural Metal Fabricators and Fitters \(51-2041\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)
Associated Occupation: Structural Metal Fabricators and Fitters (51-2041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Design	5.2	10.3	6.0	<< Extensive education and/or training may be required
Mechanical	6.8	8.6	9.5	> Current knowledge level is likely sufficient
Building and Construction	4.0	6.9	4.9	<< Extensive education and/or training may be required
Production and Processing	6.0	6.9	6.4	0 Current knowledge level may be sufficient
Engineering and Technology	5.7	6.2	6.4	0 Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)
Associated Occupation: Structural Metal Fabricators and Fitters (51-2041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Operation and Control	5.4	5.9	5.9	0 Current skill level may be sufficient
Installation	1.7	2.0	1.6	< A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 91

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)
Associated Occupation: Structural Metal Fabricators and Fitters (51-2041)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Visualization	7.5	10.1	8.6	<	Some improvement in abilities may be required
Trunk Strength	5.7	9.5	7.4	<	Some improvement in abilities may be required
Manual Dexterity	6.5	9.2	10.3	>	Current ability level is likely sufficient
Static Strength	5.0	8.3	6.9	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)
Associated Occupation: Structural Metal Fabricators and Fitters (51-2041)

Work Activities	Exclusivity of Activity
Climb ladders, scaffolding, or utility or telephone poles	56
Construct patterns or templates for welding projects	99
Erect scaffold	56
Examine products or work to verify conformance to specifications	15
Fabricate beams	99
Fabricate, assemble, or disassemble manufactured products by hand	11
File, sand, grind, or polish metal or plastic objects	82
Identify base metals for welding	68
Identify properties of metals for repair or fabrication activities	71
Lay out machining, welding or precision assembly projects	63
Move or fit heavy objects	8
Operate hoist, winch, or hydraulic boom	34
Perform safety inspections in industrial, manufacturing or repair setting	32
Read blueprints	10
Read production layouts	66
Read specifications	23
Read technical drawings	7
Read work order, instructions, formulas, or processing charts	9
Recognize characteristics of alloys	71
Recognize characteristics of metals	62
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use hand or power tools	2
Use precision measuring tools or equipment	17
Use spot or tack welding techniques	87

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Structural Metal Fabricators and Fitters (51-2041)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Data management and query software	1
Drafting supplies	9
Forming tools	2
Heating equipment and parts and accessories	19
Holding and clamping tools	3
Holding and positioning and guiding systems and devices	23
Indicating and recording instruments	2
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Marking tools	11
Measuring and layout tools	3
Metal bending and forming machinery	17
Metal working machinery attachments	35
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Soldering and brazing and welding machinery and supplies	6
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.